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Sommario/riassunto

This book contributes significantly to the international literature by bringing forth a novel and comprehensive exploration of urban resilience in the face of climate change and environmental pollution. Its focus on integrating physiological, biochemical, and molecular dimensions distinguishes it from existing literature. The book offers several key contributions, including an interdisciplinary approach to understanding the complex interactions within urban ecosystems. It includes cutting-edge insights that have not been extensively explored in existing literature, practical applications, and evidence-based strategies to enhance urban sustainability and resilience. The book has a global relevance to a diverse international readership and provides strategic guidance to policymakers and urban planners when making decisions to develop evidence-based strategies that cater to the specific challenges of cities. Urban forests play a critical role in enhancing the resilience of cities by providing numerous benefits, including improved air quality, reduced urban heat island effect, and enhanced biodiversity, ultimately improving urban health. Besides, urban forests are a crucial natural-based solution (NbS) to mitigate air pollution and climate change impacts in cities. However, in the face of climate change and environmental pressures, urban forests face significant challenges to their survival and functionality. This book explores the complex morpho-physio-biochemical and molecular changes that enable urban forests to flourish amidst climate change and environmental pollution. It examines how urban trees modulate their morphological structures, including root systems and physiological and biochemical functioning, and molecular alterations to withstand changing urban climatic and environmental conditions.
